

# Exhaust Ventilation Systems

WAC 286-818-400

## Section Contents

**YOUR RESPONSIBILITY:**

**To make sure exhaust ventilation systems meet these requirements**

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# Exhaust Ventilation Systems

WAC 296-818-400

## Rule

WAC 296-818-40005

### Construction

#### You must

- Make sure exhaust systems are constructed, installed, inspected, and maintained to meet both of the following:
  - The American National Standards Institute (ANSI), Z9.2-2001 for:
    - Fundamentals Governing the Design and Operation of Local Exhaust Systems
  - The National Fire Protection Association (NFPA) 91-2004 for:
    - Exhaust Systems for Air Conveying of Vapors, Gases and Noncombustible Particulate Solids.



#### Reference:

- Refer to the American National Standards Institute, ANSI Z9.4-1997 for information on the following:
  - Exhaust Systems for Abrasive-blasting Operations, Ventilation, and Safe Practices for Fixed Location Enclosures.



# Exhaust Ventilation Systems

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## Rule

WAC 296-818-40010

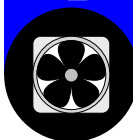
### Explosion venting and wiring

#### You must

- Follow the requirements in Table-3 for flammable or combustible dust mixtures.

**Table 3**  
**Explosion Venting and Wiring**

If you have	Then
Flammable or explosive dust mixtures that may be present	<p>Make sure the construction of equipment, including the exhaust system and all electrical wiring, meets both of the following</p> <ul style="list-style-type: none"><li>– The American National Standard Installation (ANSI) of Blower and Exhaust Systems for Dust, Stock, and Vapor Removal or Conveying, NFPA 91. 2004.</li><li>– The electrical requirements for Class II locations in WAC 296-24-95613, located in Part L of chapter 296-24 WAC.</li></ul> <p>Make sure blast cleaning enclosures, the ducts, and the dust collector are constructed with either loose panels or explosion venting areas that meet all of the following:</p> <ul style="list-style-type: none"><li>– Provides pressure relief in case of an explosion.</li><li>– Are located away from occupied areas.</li><li>– The Guide for Deflagations, NFPA 68. 2002.</li></ul>



# Exhaust Ventilation Systems

WAC 296-818-400

## Rule

WAC 296-818-40015

### Inspection and maintenance

#### You must

- Make sure the exhaust ventilation system is fully operational by checking the static pressure drop at the exhaust ducts leading from the equipment at both of the following times:
  - When installation is completed
  - Annually after installation.
- Repair or clean exhaust systems when either of the following occur:
  - Dust leaks are found
  - or**
  - The pressure drop gauge indicates a change exceeding 20 percent.
- Use an abrasive separator to separate larger particles for reuse on installations where abrasive is recirculated.
- Set up dust collecting equipment to do both of the following:
  - Empty and remove accumulated dust without contaminating work areas
  - Discharge the air used in blast cleaning equipment.



#### Note:

Dispose fine dust from dry collectors by doing one of the following:

- Emptying and transporting the fine dust in enclosed containers
- Using a sluice with a wetting process to contain the dust.

